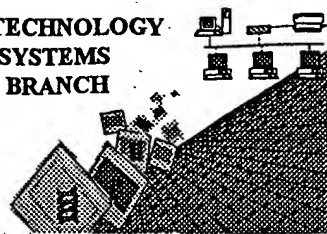


N. Yin

Re-run

BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/988,384A
Source: OIR
Date Processed by STIC: 3/19/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

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Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
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Revised 01/29/2002



OIPE

RAW SEQUENCE LISTING

DATE: 03/19/2002

PATENT APPLICATION: US/09/988,384A

TIME: 13:55:49

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

Does Not Comply
Corrected Diskette Needed

4 <110> APPLICANT: Sherman, D.H.
5 Liu, H.
6 Xue, Y.
7 Zhao, L.
9 <120> TITLE OF INVENTION: DNA encoding methymycin and pikromycin
11 <130> FILE REFERENCE: 600.536US1
13 <140> CURRENT APPLICATION NUMBER: US 09/988,384A
14 <141> CURRENT FILING DATE: 2001-11-19
16 <150> PRIOR APPLICATION NUMBER: PCT/US99/14398
17 <151> PRIOR FILING DATE: 1999-06-25
19 <150> PRIOR APPLICATION NUMBER: US 09/105,537
20 <151> PRIOR FILING DATE: 1998-06-26
22 <160> NUMBER OF SEQ ID NOS: 53

ERRORED SEQUENCES

2297 <210> SEQ ID NO: 6
2298 <211> LENGTH: 12199
2299 <212> TYPE: PRT
2300 <213> ORGANISM: Streptomyces venezuelae *see pg 2-7*
2302 <400> SEQUENCE: 6
2303 Met Ala Phe Ser Pro Gln Gly Gly Arg His Glu Leu Gly Gln Asn Phe
2304 1 5 10 15
2305 Leu Val Asp Arg Ser Val Ile Asp Glu Ile Asp Gly Leu Val Ala Arg
2306 20 25 30
2307 Thr Lys Gly Pro Ile Leu Glu Ile Gly Pro Gly Asp Gly Ala Leu Thr
2308 35 40 45
2309 Leu Pro Leu Ser Arg His Gly Arg Pro Ile Thr Ala Val Glu Leu Asp
2310 50 55 60
2311 Gly Arg Arg Ala Gln Arg Leu Gly Ala Arg Thr Pro Gly His Val Thr
2312 65 70 75 80
2313 Val Val His His Asp Phe Leu Gln Tyr Pro Leu Pro Arg Asn Pro His
2314 85 90 95
2315 Val Val Val Gly Asn Val Pro Phe His Leu Thr Thr Ala Ile Met Arg
2316 100 105 110
2317 Arg Leu Leu Asp Ala Gln His Trp His Thr Ala Val Leu Leu Val Gln
2318 115 120 125
2319 Trp Glu Val Ala Arg Arg Arg Ala Gly Val Gly Gly Ser Thr Leu Leu
2320 130 135 140
2321 Thr Ala Gly Trp Ala Pro Trp Tyr Glu Phe Asp Leu His Ser Arg Val
2322 145 150 155 160
2323 Pro Ala Arg Ala Phe Arg Pro Met Pro Gly Val Asp Gly Gly Val Leu

RAW SEQUENCE LISTING

DATE: 03/19/2002

PATENT APPLICATION: US/09/988,384A

TIME: 13:55:50

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

only the
errors
portions of
sequence 6
shown

when numbering
the last
amino acid
on a line,
please end
the number
directly below
the last letter
of the amino
acid

Ala | s | Leu
p | a | 10080
e | c | e

e.g.
Trp 10065 | s | Ala
p | a | c | e

please
insert
a space
between
ending
number
and next
amino
acid

```

3549 Glu Val Asp Val Leu Glu Ala Gly Ala Asp Asp Asp Arg Glu Ala Leu
3550      9970      9975      9980
3551 Ala Ala Arg Leu Thr Ala Leu Thr Thr Gly Asp Gly Phe Thr Gly Val
3552 9985      9990      9995      10000
3553 Val Ser Leu Leu Asp Asp Leu Val Pro Gln Val Ala Trp Val Gln Ala
3554      10005      10010      10015
3555 Leu Gly Asp Ala Gly Ile Lys Ala Pro Leu Trp Ser Val Thr Gln Gly
3556      10020      10025      10030
3557 Ala Val Ser Val Gly Arg Leu Asp Thr Pro Ala Asp Pro Asp Arg Ala
3558      10035      10040      10045
3559 Met Leu Trp Gly Leu Gly Arg Val Val Ala Leu Glu His Pro Glu Arg
3560      10050      10055      10060
3561 Trp Ala Gly Leu Val Asp Leu Pro Ala Gln Pro Asp Ala Ala Ala Leu
E--> 3562 10065      10070      10075      10080
3563 Ala His Leu Val Thr Ala Leu Ser Gly Ala Thr Gly Glu Asp Gln Ile
3564      10085      10090      10095
3565 Ala Ile Arg Thr Thr Gly Leu His Ala Arg Arg Leu Ala Arg Ala Pro
3566      10100      10105      10110
3567 Leu His Gly Arg Arg Pro Thr Arg Asp Trp Gln Pro His Gly Thr Val
3568      10115      10120      10125
3569 Leu Ile Thr Gly Gly Thr Gly Ala Leu Gly Ser His Ala Ala Arg Trp
3570      10130      10135      10140
3571 Met Ala His His Gly Ala Glu His Leu Leu Leu Val Ser Arg Ser Gly
E--> 3572 10145      10150      10155      10160
3573 Glu Gln Ala Pro Gly Ala Thr Gln Leu Thr Ala Glu Leu Thr Ala Ser
3574      10165      10170      10175
3575 Gly Ala Arg Val Thr Ile Ala Ala Cys Asp Val Ala Asp Pro His Ala
3576      10180      10185      10190
3577 Met Arg Thr Leu Leu Asp Ala Ile Pro Ala Glu Thr Pro Leu Thr Ala
3578      10195      10200      10205
3579 Val Val His Thr Ala Gly Ala Pro Gly Gly Asp Pro Leu Asp Val Thr
3580      10210      10215      10220
3581 Gly Pro Glu Asp Ile Ala Arg Ile Leu Gly Ala Lys Thr Ser Gly Ala
E--> 3582 10225      10230      10235      10240
3583 Glu Val Leu Asp Asp Leu Leu Arg Gly Thr Pro Leu Asp Ala Phe Val
3584      10245      10250      10255
3585 Leu Tyr Ser Ser Asn Ala Gly Val Trp Gly Ser Gly Ser Gln Gly Val
3586      10260      10265      10270
3587 Tyr Ala Ala Ala Asn Ala His Leu Asp Ala Leu Ala Ala Arg Arg Arg
3588      10275      10280      10285
3589 Ala Arg Gly Glu Thr Ala Thr Ser Val Ala Trp Gly Leu Trp Ala Gly
3590      10290      10295      10300
3591 Asp Gly Met Gly Arg Gly Ala Asp Asp Ala Tyr Trp Gln Arg Arg Gly
E--> 3592 10305      10310      10315      10320
3593 Ile Arg Pro Met Ser Pro Asp Arg Ala Leu Asp Glu Leu Ala Lys Ala
3594      10325      10330      10335
3595 Leu Ser His Asp Glu Thr Phe Val Ala Val Ala Asp Val Asp Trp Glu
3596      10340      10345      10350
3597 Arg Phe Ala Pro Ala Phe Thr Val Ser Arg Pro Ser Leu Leu Leu Asp

```

3

RAW SEQUENCE LISTING

DATE: 03/19/2002

PATENT APPLICATION: US/09/988,384A

TIME: 13:55:50

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

3598 10355 10360 10365
3599 Gly Val Pro Glu Ala Arg Gln Ala Leu Ala Pro Val Gly Ala Pro
3600 10370 10375 10380
3601 Ala Pro Gly Asp Ala Ala Val Ala Pro Thr Gly Gln Ser Ser Ala Leu
E--> 3602 10385 10390 10395 10400
3603 Ala Ala Ile Thr Ala Leu Pro Glu Pro Glu Arg Arg Pro Ala Leu Leu
3604 10405 10410 10415
3605 Thr Leu Val Arg Thr His Ala Ala Val Leu Gly His Ser Ser Pro
3606 10420 10425 10430
3607 Asp Arg Val Ala Pro Gly Arg Ala Phe Thr Glu Leu Gly Phe Asp Ser
3608 10435 10440 10445
3609 Leu Thr Ala Val Gln Leu Arg Asn Gln Leu Ser Thr Val Val Gly Asn
3610 10450 10455 10460
3611 Arg Leu Pro Ala Thr Thr Val Phe Asp His Pro Thr Pro Ala Ala Leu
E--> 3612 10465 10470 10475 10480
3613 Ala Ala His Leu His Glu Ala Tyr Leu Ala Pro Ala Glu Pro Ala Pro
3614 10485 10490 10495
3615 Thr Asp Trp Glu Gly Arg Val Arg Arg Ala Leu Ala Glu Leu Pro Leu
3616 10500 10505 10510
3617 Asp Arg Leu Arg Asp Ala Gly Val Leu Asp Thr Val Leu Arg Leu Thr
3618 10515 10520 10525
3619 Gly Ile Glu Pro Glu Pro Gly Ser Gly Gly Ser Asp Gly Gly Ala Ala
3620 10530 10535 10540
3621 Asp Pro Gly Ala Glu Pro Glu Ala Ser Ile Asp Asp Leu Asp Ala Glu
E--> 3622 10545 10550 10555 10560
3623 Ala Leu Ile Arg Met Ala Leu Gly Pro Arg Asn Thr Met Thr Ser Ser
3624 10565 10570 10575
3625 Asn Glu Gln Leu Val Asp Ala Leu Arg Ala Ser Leu Lys Glu Asn Glu
3626 10580 10585 10590
3627 Glu Leu Arg Lys Glu Ser Arg Arg Arg Ala Asp Arg Arg Gln Glu Pro
3628 10595 10600 10605
3629 Met Ala Ile Val Gly Met Ser Cys Arg Phe Ala Gly Gly Ile Arg Ser
3630 10610 10615 10620
3631 Pro Glu Asp Leu Trp Asp Ala Val Ala Ala Gly Lys Asp Leu Val Ser
E--> 3632 10625 10630 10635 10640
3633 Glu Val Pro Glu Glu Arg Gly Trp Asp Ile Asp Ser Leu Tyr Asp Pro
3634 10645 10650 10655
3635 Val Pro Gly Arg Lys Gly Thr Thr Tyr Val Arg Asn Ala Ala Phe Leu
3636 10660 10665 10670
3637 Asp Asp Ala Ala Gly Phe Asp Ala Ala Phe Phe Gly Ile Ser Pro Arg
3638 10675 10680 10685
3639 Glu Ala Leu Ala Met Asp Pro Gln Gln Arg Gln Leu Leu Glu Ala Ser
3640 10690 10695 10700
3641 Trp Glu Val Phe Glu Arg Ala Gly Ile Asp Pro Ala Ser Val Arg Gly
E--> 3642 10705 10710 10715 10720
3643 Thr Asp Val Gly Val Tyr Val Gly Cys Gly Tyr Gln Asp Tyr Ala Pro
3644 10725 10730 10735
3645 Asp Ile Arg Val Ala Pro Glu Gly Thr Gly Gly Tyr Val Val Thr Gly
3646 10740 10745 10750

same
error

RAW SEQUENCE LISTING

DATE: 03/19/2002

PATENT APPLICATION: US/09/988,384A

TIME: 13:55:50

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

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3647 Asn Ser Ser Ala Val Ala Ser Gly Arg Ile Ala Tyr Ser Leu Gly Leu
3648      10755      10760      10765
3649 Glu Gly Pro Ala Val Thr Val Asp Thr Ala Cys Ser Ser Leu Val
3650      10770      10775      10780
3651 Ala Leu His Leu Ala Leu Lys Gly Leu Arg Asn Gly Asp Cys Ser Thr
E--> 3652 (10785)      10790      10795      (10800)
3653 Ala Leu Val Gly Gly Val Ala Val Leu Ala Thr Pro Gly Ala Phe Ile
3654      10805      10810      10815
3655 Glu Phe Ser Ser Gln Gln Ala Met Ala Ala Asp Gly Arg Thr Lys Gly
3656      10820      10825      10830
3657 Phe Ala Ser Ala Ala Asp Gly Leu Ala Trp Gly Glu Gly Val Ala Val
3658      10835      10840      10845
3659 Leu Leu Leu Glu Arg Leu Ser Asp Ala Arg Arg Lys Gly His Arg Val
3660      10850      10855      10860
3661 Leu Ala Val Val Arg Gly Ser Ala Ile Asn Gln Asp Gly Ala Ser Asn
E--> 3662 (10865)      10870      10875      (10880)
3663 Gly Leu Thr Ala Pro His Gly Pro Ser Gln Gln His Leu Ile Arg Gln
3664      10885      10890      10895
3665 Ala Leu Ala Asp Ala Arg Leu Thr Ser Ser Asp Val Asp Val Val Glu
3666      10900      10905      10910
3667 Gly His Gly Thr Gly Thr Arg Leu Gly Asp Pro Ile Glu Ala Gln Ala
3668      10915      10920      10925
3669 Leu Leu Ala Thr Tyr Gly Gln Gly Arg Ala Pro Gly Gln Pro Leu Arg
3670      10930      10935      10940
3671 Leu Gly Thr Leu Lys Ser Asn Ile Gly His Thr Gln Ala Ala Ser Gly
E--> 3672 (10945)      10950      10955      (10960)
3673 Val Ala Gly Val Ile Lys Met Val Gln Ala Leu Arg His Gly Val Leu
3674      10965      10970      10975
3675 Pro Lys Thr Leu His Val Asp Glu Pro Thr Asp Gln Val Asp Trp Ser
3676      10980      10985      10990
3677 Ala Gly Ser Val Glu Leu Leu Thr Glu Ala Val Asp Trp Pro Glu Arg
3678      10995      11000      11005
3679 Pro Gly Arg Leu Arg Arg Ala Gly Val Ser Ala Phe Gly Val Gly Gly
3680      11010      11015      11020
3681 Thr Asn Ala His Val Val Leu Glu Glu Ala Pro Ala Val Glu Glu Ser
E--> 3682 (11025)      11030      11035      (11040)
3683 Pro Ala Val Glu Pro Pro Ala Gly Gly Gly Val Val Pro Trp Pro Val
3684      11045      11050      11055
3685 Ser Ala Lys Thr Ser Ala Ala Leu Asp Ala Gln Ile Gly Gln Leu Ala
3686      11060      11065      11070
3687 Ala Tyr Ala Glu Asp Arg Thr Asp Val Asp Pro Ala Val Ala Ala Arg
3688      11075      11080      11085
3689 Ala Leu Val Asp Ser Arg Thr Ala Met Glu His Arg Ala Val Ala Val
3690      11090      11095      11100
3691 Gly Asp Ser Arg Glu Ala Leu Arg Asp Ala Leu Arg Met Pro Glu Gly
E--> 3692 (11105)      11110      11115      (11120)
3693 Leu Val Arg Gly Thr Val Thr Asp Pro Gly Arg Val Ala Phe Val Phe
3694      11125      11130      11135
3695 Pro Gly Gln Gly Thr Gln Trp Ala Gly Met Gly Ala Glu Leu Leu Asp

```

same
error

15

RAW SEQUENCE LISTING

DATE: 03/19/2002

PATENT APPLICATION: US/09/988,384A

TIME: 13:55:50

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

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3696          11140          11145          11150
3697 Ser Ser Pro Glu Phe Ala Ala Ala Met Ala Glu Cys Glu Thr Ala Leu
3698          11155          11160          11165
3699 Ser Pro Tyr Val Asp Trp Ser Leu Glu Ala Val Val Arg Gln Ala Pro
3700          11170          11175          11180
3701 Ser Ala Pro Thr Leu Asp Arg Val Asp Val Val Gln Pro Val Thr Phe
E--> 3702 11185          11190          11195          11200
3703 Ala Val Met Val Ser Leu Ala Lys Val Trp Gln His His Gly Ile Thr
3704          11205          11210          11215
3705 Pro Glu Ala Val Ile Gly His Ser Gln Gly Glu Ile Ala Ala Ala Tyr
3706          11220          11225          11230
3707 Val Ala Gly Ala Leu Thr Leu Asp Asp Ala Ala Arg Val Val Thr Leu
3708          11235          11240          11245
3709 Arg Ser Lys Ser Ile Ala Ala His Leu Ala Gly Lys Gly Gly Met Ile
3710          11250          11255          11260
3711 Ser Leu Ala Leu Ser Glu Glu Ala Thr Arg Gln Arg Ile Glu Asn Leu
E--> 3712 11265          11270          11275          11280
3713 His Gly Leu Ser Ile Ala Ala Val Asn Gly Pro Thr Ala Thr Val Val
3714          11285          11290          11295
3715 Ser Gly Asp Pro Thr Gln Ile Gln Glu Leu Ala Gln Ala Cys Glu Ala
3716          11300          11305          11310
3717 Asp Gly Ile Arg Ala Arg Ile Ile Pro Val Asp Tyr Ala Ser His Ser
3718          11315          11320          11325
3719 Ala His Val Glu Thr Ile Glu Asn Glu Leu Ala Asp Val Leu Ala Gly
3720          11330          11335          11340
3721 Leu Ser Pro Gln Thr Pro Gln Val Pro Phe Phe Ser Thr Leu Glu Gly
E--> 3722 11345          11350          11355          11360
3723 Thr Trp Ile Thr Glu Pro Ala Leu Asp Gly Gly Tyr Trp Tyr Arg Asn
3724          11365          11370          11375
3725 Leu Arg His Arg Val Gly Phe Ala Pro Ala Val Glu Thr Leu Ala Thr
3726          11380          11385          11390
3727 Asp Glu Gly Phe Thr His Phe Ile Glu Val Ser Ala His Pro Val Leu
3728          11395          11400          11405
3729 Thr Met Thr Leu Pro Asp Lys Val Thr Gly Leu Ala Thr Leu Arg Arg
3730          11410          11415          11420
3731 Glu Asp Gly Gly Gln His Arg Leu Thr Thr Ser Leu Ala Glu Ala Trp
E--> 3732 11425          11430          11435          11440
3733 Ala Asn Gly Leu Ala Leu Asp Trp Ala Ser Leu Leu Pro Ala Thr Gly
3734          11445          11450          11455
3735 Ala Leu Ser Pro Ala Val Pro Asp Leu Pro Thr Tyr Ala Phe Gln His
3736          11460          11465          11470
3737 Arg Ser Tyr Trp Ile Ser Pro Ala Gly Pro Gly Glu Ala Pro Ala His
3738          11475          11480          11485
3739 Thr Ala Ser Gly Arg Glu Ala Val Ala Glu Thr Gly Leu Ala Trp Gly
3740          11490          11495          11500
3741 Pro Gly Ala Glu Asp Leu Asp Glu Glu Gly Arg Arg Ser Ala Val Leu
E--> 3742 11505          11510          11515          11520
3743 Ala Met Val Met Arg Gln Ala Ala Ser Val Leu Arg Cys Asp Ser Pro
3744          11525          11530          11535

```

same

RAW SEQUENCE LISTING

DATE: 03/19/2002

PATENT APPLICATION: US/09/988,384A

TIME: 13:55:50

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

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3745 Glu Glu Val Pro Val Asp Arg Pro Leu Arg Glu Ile Gly Phe Asp Ser
3746          11540          11545          11550
3747 Leu Thr Ala Val Asp Phe Arg Asn Arg Val Asn Arg Leu Thr Gly Leu
3748          11555          11560          11565
3749 Gln Leu Pro Pro Thr Val Val Phe Gln His Pro Thr Pro Val Ala Leu
3750          11570          11575          11580
3751 Ala Glu Arg Ile Ser Asp Glu Leu Ala Glu Arg Asn Trp Ala Val Ala
E--> 3752 11585          11590          11595          11600
3753 Glu Pro Ser Asp His Glu Gln Ala Glu Glu Glu Lys Ala Ala Ala Pro
3754          11605          11610          11615
3755 Ala Gly Ala Arg Ser Gly Ala Asp Thr Gly Ala Gly Ala Gly Met Phe
3756          11620          11625          11630
3757 Arg Ala Leu Phe Arg Gln Ala Val Glu Asp Asp Arg Tyr Gly Glu Phe
3758          11635          11640          11645
3759 Leu Asp Val Leu Ala Glu Ala Ser Ala Phe Arg Pro Gln Phe Ala Ser
3760          11650          11655          11660
3761 Pro Glu Ala Cys Ser Glu Arg Leu Asp Pro Val Leu Leu Ala Gly Gly
E--> 3762 11665          11670          11675          11680
3763 Pro Thr Asp Arg Ala Glu Gly Arg Ala Val Leu Val Gly Cys Thr Gly
3764          11685          11690          11695
3765 Thr Ala Ala Asn Gly Gly Pro His Glu Phe Leu Arg Leu Ser Thr Ser
3766          11700          11705          11710
3767 Phe Gln Glu Glu Arg Asp Phe Leu Ala Val Pro Leu Pro Gly Tyr Gly
3768          11715          11720          11725
3769 Thr Gly Thr Gly Thr Gly Thr Ala Leu Leu Pro Ala Asp Leu Asp Thr
3770          11730          11735          11740
3771 Ala Leu Asp Ala Gln Ala Arg Ala Ile Leu Arg Ala Ala Gly Asp Ala
E--> 3772 11745          11750          11755          11760
3773 Pro Val Val Leu Leu Gly His Ser Gly Gly Ala Leu Leu Ala His Glu
3774          11765          11770          11775
3775 Leu Ala Phe Arg Leu Glu Arg Ala His Gly Ala Pro Pro Ala Gly Ile
3776          11780          11785          11790
3777 Val Leu Val Asp Pro Tyr Pro Pro Gly His Gln Glu Pro Ile Glu Val
3778          11795          11800          11805
3779 Trp Ser Arg Gln Leu Gly Glu Gly Leu Phe Ala Gly Glu Leu Glu Pro
3780          11810          11815          11820
3781 Met Ser Asp Ala Arg Leu Leu Ala Met Gly Arg Tyr Ala Arg Phe Leu
E--> 3782 11825          11830          11835          11840
3783 Ala Gly Pro Arg Pro Gly Arg Ser Ser Ala Pro Val Leu Leu Val Arg
3784          11845          11850          11855
3785 Ala Ser Glu Pro Leu Gly Asp Trp Gln Glu Glu Arg Gly Asp Trp Arg
3786          11860          11865          11870
3787 Ala His Trp Asp Leu Pro His Thr Val Ala Asp Val Pro Gly Asp His
3788          11875          11880          11885
3789 Phe Thr Met Met Arg Asp His Ala Pro Ala Val Ala Glu Ala Val Leu
3790          11890          11895          11900
3791 Ser Trp Leu Asp Ala Ile Glu Gly Ile Glu Gly Ala Gly Lys Met Thr
E--> 3792 11905          11910          11915          11920
3793 Asp Arg Pro Leu Asn Val Asp Ser Gly Leu Trp Ile Arg Arg Phe His

```

Sane

7

RAW SEQUENCE LISTING

DATE: 03/19/2002

PATENT APPLICATION: US/09/988,384A

TIME: 13:55:50

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

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3794          11925          11930          11935
3795 Pro Ala Pro Asn Ser Ala Val Arg Leu Val Cys Leu Pro His Ala Gly
3796          11940          11945          11950
3797 Gly Ser Ala Ser Tyr Phe Phe Arg Phe Ser Glu Glu Leu His Pro Ser
3798          11955          11960          11965
3799 Val Glu Ala Leu Ser Val Gln Tyr Pro Gly Arg Gln Asp Arg Arg Ala
3800          11970          11975          11980
3801 Glu Pro Cys Leu Glu Ser Val Glu Glu Leu Ala Glu His Val Val Ala
E--> 3802 11985          11990          11995          12000
3803 Ala Thr Glu Pro Trp Trp Gln Glu Gly Arg Leu Ala Phe Phe Gly His
3804          12005          12010          12015
3805 Ser Leu Gly Ala Ser Val Ala Phe Glu Thr Ala Arg Ile Leu Glu Gln
3806          12020          12025          12030
3807 Arg His Gly Val Arg Pro Glu Gly Leu Tyr Val Ser Gly Arg Arg Ala
3808          12035          12040          12045
3809 Pro Ser Leu Ala Pro Asp Arg Leu Val His Gln Leu Asp Asp Arg Ala
3810          12050          12055          12060
3811 Phe Leu Ala Glu Ile Arg Arg Leu Ser Gly Thr Asp Glu Arg Phe Leu
E--> 3812 12065          12070          12075          12080
3813 Gln Asp Asp Glu Leu Arg Leu Val Leu Pro Ala Leu Arg Ser Asp
3814          12085          12090          12095
3815 Tyr Lys Ala Ala Glu Thr Tyr Leu His Arg Pro Ser Ala Lys Leu Thr
3816          12100          12105          12110
3817 Cys Pro Val Met Ala Leu Ala Gly Asp Arg Asp Pro Lys Ala Pro Leu
3818          12115          12120          12125
3819 Asn Glu Val Ala Glu Trp Arg Arg His Thr Ser Gly Pro Phe Cys Leu
3820          12130          12135          12140
3821 Arg Ala Tyr Ser Gly Gly His Phe Tyr Leu Asn Asp Gln Trp His Glu
E--> 3822 12145          12150          12155          12160
3823 Ile Cys Asn Asp Ile Ser Asp His Leu Leu Val Thr Arg Gly Ala Pro
3824          12165          12170          12175
3825 Asp Ala Arg Val Val Gln Pro Pro Thr Ser Leu Ile Glu Gly Ala Ala
3826          12180          12185          12190
3827 Lys Arg Trp Gln Asn Pro Arg
3828          12195

```

same

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/988,384A

DATE: 03/19/2002

TIME: 13:55:52

Input Set : A:\09-988384 Sequence Listing.txt

Output Set: N:\CRF3\03192002\I988384A.raw

L:3562 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6

M:332 Repeated in SeqNo=6